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| <b>Exhibit R-2, RDT&amp;E Budget Item Justification:</b> PB 2013 Office of Secretary Of Defense | <b>DATE:</b> February 2012 |
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| APPROPRIATION/BUDGET ACTIVITY                                                                                                 |         |         |              | R-1 ITEM NOMENCLATURE                                           |               |         |         |         |         |                  |            |
|-------------------------------------------------------------------------------------------------------------------------------|---------|---------|--------------|-----------------------------------------------------------------|---------------|---------|---------|---------|---------|------------------|------------|
| 0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 3: <i>Advanced Technology Development (ATD)</i> |         |         |              | PE 0604055D8Z: <i>Operational Energy Capability Improvement</i> |               |         |         |         |         |                  |            |
| COST (\$ in Millions)                                                                                                         | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO                                                     | FY 2013 Total | FY 2014 | FY 2015 | FY 2016 | FY 2017 | Cost To Complete | Total Cost |
| Total Program Element                                                                                                         | -       | 19.925  | 26.244       | -                                                               | 26.244        | 32.653  | 33.698  | 34.782  | 35.412  | Continuing       | Continuing |
| P455: <i>Operational Energy Capability Improvement</i>                                                                        | -       | 19.925  | 26.244       | -                                                               | 26.244        | 32.653  | 33.698  | 34.782  | 35.412  | Continuing       | Continuing |

**A. Mission Description and Budget Item Justification**

The basic mission of the Operational Energy Capability Improvement Fund (OECIF) is to fund innovation that will improve the Department's operational effectiveness via targeted science and technology investments that are intended to improve the energy performance of key elements of our forces. As Defense-Wide funding, it will incentivize long term change in the science and technology portfolio of the Department to be more in line with the Department-wide Operational Energy Strategy and foster generally needed innovations to improve operational energy performance. This mission has two keys aspects. First, to develop or demonstrate and rapidly transition into the force operational energy technologies or practices that will improve the Department's military capabilities and reduce its costs. Second, to establish within the military Services sustainable institutional capacities that will continue to research, develop and adopt operational energy innovations. OECIF funds serve as "seed money" to consolidate or initiate promising operational energy programs or directions to be sustained by the Services; accordingly, OECIF generally emphasizes supporting or establishing programs, rather than a series of one-off projects.

| <b>B. Program Change Summary (\$ in Millions)</b>           | <b><u>FY 2011</u></b> | <b><u>FY 2012</u></b> | <b><u>FY 2013 Base</u></b> | <b><u>FY 2013 OCO</u></b> | <b><u>FY 2013 Total</u></b> |
|-------------------------------------------------------------|-----------------------|-----------------------|----------------------------|---------------------------|-----------------------------|
| Previous President's Budget                                 | -                     | -                     | 26.841                     | -                         | 26.841                      |
| Current President's Budget                                  | -                     | 19.925                | 26.244                     | -                         | 26.244                      |
| Total Adjustments                                           | -                     | 19.925                | -0.597                     | -                         | -0.597                      |
| • Congressional General Reductions                          | -                     | -                     |                            |                           |                             |
| • Congressional Directed Reductions                         | -                     | -                     |                            |                           |                             |
| • Congressional Rescissions                                 | -                     | -                     |                            |                           |                             |
| • Congressional Adds                                        | -                     | -                     |                            |                           |                             |
| • Congressional Directed Transfers                          | -                     | -                     |                            |                           |                             |
| • Reprogrammings                                            | -                     | -                     |                            |                           |                             |
| • SBIR/STTR Transfer                                        | -                     | -                     |                            |                           |                             |
| • Operational Energy Capability Improvement                 | -                     | 21.000                | -0.597                     | -                         | -0.597                      |
| • DOD Efficiencies - Report, Studies Boards and Commissions | -                     | -1.046                | -                          | -                         | -                           |
| • Economic Assumptions                                      | -                     | -0.029                | -                          | -                         | -                           |

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| Exhibit R-2A, RDT&E Project Justification: PB 2013 Office of Secretary Of Defense                                                            |         |         |              |                                                                                   |               |         |         |                                                            | DATE: February 2012 |                  |            |
| APPROPRIATION/BUDGET ACTIVITY<br>0400: Research, Development, Test & Evaluation, Defense-Wide<br>BA 3: Advanced Technology Development (ATD) |         |         |              | R-1 ITEM NOMENCLATURE<br>PE 0604055D8Z: Operational Energy Capability Improvement |               |         |         | PROJECT<br>P455: Operational Energy Capability Improvement |                     |                  |            |
| COST (\$ in Millions)                                                                                                                        | FY 2011 | FY 2012 | FY 2013 Base | FY 2013 OCO                                                                       | FY 2013 Total | FY 2014 | FY 2015 | FY 2016                                                    | FY 2017             | Cost To Complete | Total Cost |
| P455: Operational Energy Capability Improvement                                                                                              | -       | 19.925  | 26.244       | -                                                                                 | 26.244        | 32.653  | 33.698  | 34.782                                                     | 35.412              | Continuing       | Continuing |

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The basic mission of the Operational Energy Capability Improvement Fund (OECIF) is to fund innovation that will improve the Department’s operational effectiveness via targeted science and technology investments that are intended to improve the energy performance of key elements of our forces. As Defense-Wide funding, it will incentivize long term change in the science and technology portfolio of the Department to be more in line with the Department-wide Operational Energy Strategy and foster generally needed innovations to improve operational energy performance. This mission has two keys aspects. First, to develop or demonstrate and rapidly transition into the force operational energy technologies or practices that will improve the Department’s military capabilities and reduce its costs. Second, to establish within the military Services sustainable institutional capacities that will continue to research, develop and adopt operational energy innovations. OECIF funds serve as “seed money” to consolidate or initiate promising operational energy programs or directions to be sustained by the Services; accordingly, OECIF generally emphasizes supporting or establishing programs, rather than a series of one-off projects.

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| B. Accomplishments/Planned Programs (\$ in Millions)                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                         |  |  |  |  |  |  |  | FY 2011 | FY 2012 | FY 2013 |
| <div>Title: Operational Energy Capability Improvement</div> <div>FY 2011 Accomplishments:</div> <div>Identified that the focus for FY 12 funding would be reducing the energy load of expeditionary outposts such as forward operating bases, combat outposts and patrol bases in combat, stability and humanitarian operations; this includes reducing the energy load of equipment carried by dismounted troops in forward areas. Issued a call for program proposals within the Department with technical focus areas including: more energy efficient heating and cooling, shelters, lighting and electronics. The call for program proposals encouraged involving non-traditional innovators and small businesses in the programs and leveraging and combining existing capabilities into something larger and more significant .</div> <div>FY 2012 Plans:</div> <div>FY12 projects will primarily be determined based on the potential to increase combat capability and effectiveness while reducing operating costs. Selected efforts Fund and execute via the Services or other organizations the programs selected to reduce the energy load of expeditionary outposts. Conduct an analysis to determine if FY 13 funds should also support another set of programs focused on different operational energy problems/technologies/capabilities than reducing the energy load at expeditionary outposts.</div> <div>FY 2013 Plans:</div> <div>FY13 efforts will continue to focus on the potential to increase combat capability and effectiveness while reducing operating costs. Continue to fund and execute via the Services or other organizations the efforts started in FY 12 that also require FY 13</div> |  |  |  |  |  |  |  | -       | 19.925  | 26.244  |
|                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                                              |  |  |  |  |  |  |  |         |         |         |
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| <b>Exhibit R-2A, RDT&amp;E Project Justification:</b> PB 2013 Office of Secretary Of Defense                                                                          |  | <b>DATE:</b> February 2012                                                                      |                |                                                                          |
| <b>APPROPRIATION/BUDGET ACTIVITY</b><br>0400: <i>Research, Development, Test &amp; Evaluation, Defense-Wide</i><br>BA 3: <i>Advanced Technology Development (ATD)</i> |  | <b>R-1 ITEM NOMENCLATURE</b><br>PE 0604055D8Z: <i>Operational Energy Capability Improvement</i> |                | <b>PROJECT</b><br>P455: <i>Operational Energy Capability Improvement</i> |
| <b>B. Accomplishments/Planned Programs (\$ in Millions)</b>                                                                                                           |  | <b>FY 2011</b>                                                                                  | <b>FY 2012</b> | <b>FY 2013</b>                                                           |
| funding. Begin new efforts to improve the operational energy performance of the total force as informed by the gap assessments conducted in FY 12.                    |  |                                                                                                 |                |                                                                          |
| <b>Accomplishments/Planned Programs Subtotals</b>                                                                                                                     |  | -                                                                                               | 19.925         | 26.244                                                                   |
| <b>C. Other Program Funding Summary (\$ in Millions)</b><br>N/A                                                                                                       |  |                                                                                                 |                |                                                                          |
| <b>D. Acquisition Strategy</b><br>N/A                                                                                                                                 |  |                                                                                                 |                |                                                                          |
| <b>E. Performance Metrics</b><br>None                                                                                                                                 |  |                                                                                                 |                |                                                                          |